

**CLAIMS**

1. A method for diagnosing an endometriosis-related disease which comprises measuring an expression level of histamine releasing factor (HRF) polynucleotide in a biological sample from a subject, comparing the HRF polynucleotide expression level with that in a normal biological sample, and judging a subject exhibiting a significantly higher HRF polynucleotide expression level when compared with the normal biological sample as a patient having the endometriosis-related disease or as a subject at a high risk thereof.
2. HRF oligonucleotide which hybridizes under a stringent condition with HRF polynucleotide.
3. An oligonucleotide probe, which is a labeled HRF oligonucleotide of claim 2.
4. A DNA microarray having as a target capture probe the HRF oligonucleotide of claim 2 or an HRF polynucleotide.
5. A primer set for PCR amplification of an HRF polynucleotide.
6. A method for diagnosing an endometriosis-related disease comprising at least the following steps:
  - (a) a step for preparing RNA from a biological sample of a subject;
  - (b) a step for subjecting the RNA prepared in the step (a) to an electrophoretic separation;
  - (c) a step for hybridizing the RNA prepared in the step (b) with the oligonucleotide probe of claim 3 under a stringent condition;
  - (d) a step for comparing the signal level of the oligonucleotide probe

which had been hybridized with the RNA in the step (c) as an index of the HRF polynucleotide expression level with a result of a normal biological sample; and,

- 5 (e) a step for using a significantly higher HRF polynucleotide expression level when compared with the normal biological sample as a index reflecting the degree of the endometriosis-related disease or a risk thereof.

7. A method for diagnosing an endometriosis-related disease comprising at least the following steps:

- 10 (a) a step for preparing RNA from a biological sample of a subject;  
(b) a step for preparing a labeled cDNA from the RNA prepared in the step (a);  
(c) a step for contacting the labeled cDNA prepared in the step (b) with  
15 the DNA microarray of claim 4;  
(d) a step for comparing the signal level of the labeled cDNA which had been hybridized with a capture probe of the DNA microarray in the step (c) as an index of the HRF polynucleotide expression level with a result of a normal biological sample; and,  
20 (e) a step for using a significantly higher HRF polynucleotide expression level when compared with the normal biological sample as a index reflecting the degree of the endometriosis-related disease or a risk thereof.

25 8. A method for diagnosing an endometriosis-related disease comprising at least the following steps:

- (a) a step for preparing RNA from a biological sample of a subject;  
(b) a step for synthesizing a cDNA using the primer set of claim 5 with the RNA prepared in the step (a) as a template;  
30 (c) a step for comparing the level of the cDNA prepared in the step (b)

as a HRF polynucleotide expression index with a result of a normal biological sample; and,

- (d) a step for using a significantly higher HRF polynucleotide expression level when compared with the normal biological sample as a index reflecting the degree of the endometriosis-related disease or a risk thereof.

9. A method for diagnosing an endometriosis-related disease comprising 2 or more diagnostic methods selected from the diagnostic methods according to claims 6, 7 and 8.

10. A therapeutic agent for an endometriosis-related disease comprising a molecule which inhibits the expression of an intracellular HRF polynucleotide.

11. A method for treating an endometriosis-related disease comprising administering a molecule which inhibits the expression of an intracellular HRF polynucleotide.